

NEW COMBINATION IN *EURYBIA* (ASTERACEAE: ASTEREAE) FROM NORTH AMERICA

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ABSTRACT

A new combination is reported here for an infraspecific taxon in *Eurybia* from North America: ***Eurybia glauca*** (Nutt.) G.L. Nesom var. ***pulchra*** (S.F. Blake) Brouillet, comb. nov.

RESUMEN

Se realiza una nueva combinación para un taxon infraspecifico en *Eurybia* de Norte América: ***Eurybia glauca*** (Nutt.) G.L. Nesom var. ***pulchra*** (S.F. Blake) Brouillet, comb. nov.

INTRODUCTION

The North American genus *Eurybia*, segregated from *Aster* by Nesom (1994), has now been shown convincingly to be distinct from the Eurasian *Aster* s.str. (Noyes & Rieseberg 1999; Brouillet et al. 2001a, b; Bastien & Brouillet 2002; Semple et al. 2002). Nesom (1994, 1997) provided most of the combinations needed in this genus. Nevertheless, during preparation of the treatments of this genus for the Flora of North America project, differences in taxonomic concepts from those suggested by Nesom (1994) have led me to propose a new combination.

Eurybia glauca (Nutt.) G.L. Nesom

In his taxonomy of *Eurybia*, Nesom (1994) recognized *Eurybia pulchra* (S.F. Blake) G.L. Nesom as a species distinct from *Eurybia glauca* (Nutt.) G.L. Nesom, justifying it by the smaller leaves, more acute phyllaries and glandularity. Yet, except for glandularity, which does not appear to vary gradually from one taxon to the other, the other features all fit within the range encountered in *E. glauca*, apart from a slight tendency toward larger reproductive features in *E. pulchra*; leaf size ranges overlap considerably when a large sample of *E. glauca* is considered. A morphometric study would be needed to determine the exact amplitude and significance of size differences between the two taxa. The ranges of the two taxa appear to be parapatric in southern Utah-northern Arizona, with *E. pulchra* restricted to the vicinity of the Grand Canyon while *E. glauca* ranges widely to the north and east into the Southern Rocky Mountains; it must be

noted, however, that populations of the latter are found in Arizona south and east of the Grand Canyon. Nonetheless, no mixed population of the two taxa has been reported. The restricted range and distinct glandularity justify that *E. pulchra* be recognized as a taxon. Nevertheless, glandularity alone does not seem to justify recognizing *E. pulchra* as a distinct species. I agree with Nesom (1994) that the inclusion by Cronquist (1994) of *E. pulchra* within *E. wasatchensis* is misguided as it is based only on the shared possession of glands. Several characters distinguish *E. pulchra* and *E. wasatchensis*, including leaf glaucousness and phyllary habit (appressed vs squarrose), which the former shares with *E. glauca*. Therefore, I prefer to recognize the former as a variety of the latter, as is done by Welsh et al. (1987), even though it was originally described as a subspecies.

Eurybia glauca (Nutt.) G.L. Nesom var. **glauca**

Eurybia glauca (Nutt.) G.L. Nesom var. **pulchra** (S.F. Blake) Brouillet, comb. et stat. nov. BASIONYM: *Aster glaucodes* S.F. Blake subsp. *pulcher* S.F. Blake, Proc. Biol. Soc. Washington 35:174. 1922. *Eurybia pulchra* (S.F. Blake) G.L. Nesom, Phytologia 77:261. 1994.

The combination *Aster glaucodes* Blake var. *pulcher* (Blake) Kearney & Peebles, reported in Welsh et al. (1987), is not valid because Kearney and Peebles (1960) did not make a formal status change with proper reference to the basionym. The name was thus never validly published at the varietal rank. These authors perhaps unwittingly referred to the infraspecific taxon as a variety instead of a subspecies and might not have intended to make a new combination.

The origin of glandularity in *E. glauca* var. *pulchra* and *E. wasatchensis*, as compared to the eglandular *E. glauca* var. *glauca*, could be explained by considering the other members of section *Herrickia*, to which these taxa clearly belong: *Eurybia horrida* (Wooton & Standl.) G.L. Nesom (formerly *Herrickia horrida*) and *Aster kingii* (Brouillet et al. 2001a, b). All members of section *Herrickia* are glandular except *E. glauca* var. *glauca*. It is more parsimonious to explain the lack of glands in the latter by a loss of glands after speciation. This hypothesis would imply that the presence of glands in var. *pulchra* is ancestral within the species, and that var. *glauca* may represent a relatively more recent expansion of an eglandular phenotype to the range of the species as known today, from a more restricted original area perhaps close to the San Juan river basin where var. *pulchra* is restricted today.

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